

**REMARKS/ARGUMENTS**

In response to the office action dated February 13, 2003, Applicants respectfully request reconsideration based on the above claim amendment and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1 and 4-25 were rejected in the office action. Upon entry of this amendment and response, claims 1 and 4-25 will be pending in the application. No new matter has been added, and no additional prior art searches are required by the amendments.

Applicants would like to thank Examiner Barry Taylor for agreeing to conduct a telephonic interview on October 9, 2003. Applicants would also like to thank Examiner Taylor for allowing applicants to discuss the novelty of the present application (and specifically of claim 1) in light of the presently asserted prior art. Although agreement as to exact claim amendments was not reached, applicants' discussion was helpful in facilitating and progressing the prosecution of the present application.

In the official action, claims 1 and 4-25 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Muntz *et al.* (U.S. Patent No. 5,896,427) ("Muntz") in view of Khasnabish (U.S. Patent No. 6,411,679) in further view of Masri *et al.* (U.S. Patent No. 6,594,344) ("Masri"). Applicants respectfully assert that claims 1 and 4-25 are distinguished over the teachings of Muntz in view of Khasnabish and in further view of Masri for the reasons given below.

Briefly, the present invention provides, *inter alia*, a novel method for testing a communication network using first and second clocks that operate from a substantially similar reference. The novel method transmits a first signal from a first point to a remotely

located second point. A first clock time stamps the signal as it is transmitted from the first point, and a second clock time stamps the signal as it is received at the second point. Furthermore, a performance characteristic (e.g., signal delay, signal distortion, signal duplication, signal intensity, and signal-to-noise ratio) is determined based on a comparison of the time stamps associated with the first and second signals. The present invention has been amended merely to make explicit that which already was implicit in the claims; namely, that the recording of the time values are accomplished remotely (e.g., using the remotely located first and second clocks).

The office action relies on the combination of three distinct references, Muntz, Khasnabish and Masri, in order to suggest that the presently claimed invention is not patentable. The office action acknowledges that “Muntz does not explicitly show *testing* a communication network.” (*Office Action dated July 30, 2003* at p.3) (emphasis added). As a result, the office action relies on the combination of Muntz with Khasnabish, which allegedly teaches “call progress timing measurement in IP telephony.” (*Office Action dated July 30, 2003* at p.3). However, the office action further acknowledges that neither Muntz nor Khasnabish teach “comparing the first signal and the second signal as a function of the first and second time values and determining at least one performance characteristic of the communication network based on comparing.” (*Office Action dated July 30, 2003* at p.4). As a result, the office action relies on the further combination of Muntz and Khasnabish with Masri, which allegedly “teaches an auto latency test tool wherein latency is measured by establishing a call between a first and second device.” (*Office Action dated July 30, 2003* at

p.4). Applicants respectfully disagree both with the combination of the references and with the suggestion that such combination obviates the present invention.

As is well known, in order to combine Muntz with Khasnabish and Masri, there must be some motivation to combine the references to meet the claimed present invention. More specifically, “there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant.” *In re Oetiker*, 24 USPQ2d (BNA) 1443, 1445 (Fed. Cir. 1992). “In other words, the examiner must show reasons that the skilled artisan, confronted with the same problem as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.” *In re Rouffet*, 47 USPQ2d (BNA) 1453, 1458 (Fed. Cir. 1998).

There is no motivation in Masri to combine it with either Muntz or Khasnabish. As clearly depicted in its Figures 1 through 4, Masri is directed to localized testing and recording. Specifically, Masri uses *a single oscilloscope* (110) and two telephones (112 and 114) to test the telecommunications network (*Masri* – Figures 1 through 4). By using a single oscilloscope located at a single location (and not individual clocks at the remote sites), Masri cannot be said to operate in an environment where the recording of values used for testing is accomplished remotely. Similarly, Khasnabish is directed to calculating an elapsed time between sending and receiving a signal using a *single clock* to “calculate an elapsed time between sending the signal and receiving a response to the signal.” (*Khasnabish* – column 1, lines 56-60). Muntz, on the other hand, provides synchronization in the environment where the telephone devices and the corresponding clocks are remotely located.

As is well known to those skilled in the art of telecommunications, the differences between localized testing and remote testing are substantial. Unlike the techniques depicted in Masri, remote testing of a telecommunication network does not simply allow one to take the leads from a single oscilloscope and attach them to two telephones that may be many miles away from each other, for example. Remote testing of telecommunications networks requires overcoming additional difficulties as compared to localized testing. As such, the remote techniques described in Muntz (albeit directed to synchronization, and not testing) cannot reasonably be combined with the localized testing contemplated by Masri and Khasnabish.

Also, as previously noted, and for similar reasons there is no motivation to combine Muntz with Khasnabish. Muntz is focused on accomplishing network synchronization, and Khasnabish is directed to calculating an *elapsed* time between sending and receiving a signal. Neither reference provides the necessary motivation to combine. Specifically, Muntz does not teach, suggest or provide any motivation to apply its network synchronization to the testing of communication networks. Similarly, Khasnabish does not teach, suggest or provide any motivation to apply its method of localized “send and receive-based” testing to remote testing techniques.

In fact, Khasnabish teaches away from any such remote testing motivation by disclosing a testing method that uses a single clock to “calculate an elapsed time between sending the signal and receiving *a response to the signal.*” (*Khasnabish* – column 1, lines 56-60) (emphasis added). More specifically, Khasnabish has a first device that sends a signal to a second device. The first device then waits for a response from the second device and

adjusts an answer tone accordingly. (*Khasnabish* – column 1, lines 55-58). In other words, *Khasnabish* records the transmission time and the reception time using a single clock. *Khasnabish* does not, therefore, provide any motivation for combining its testing of a communication network with the remote synchronization methods described in *Muntz*.

Similarly, *Muntz* applies its methods to “maintaining network synchronization.” (*Muntz* – Title). As the office action itself reflects, maintaining network synchronization is different than testing a communication network. *Muntz* itself notes that maintaining network synchronization is necessary to overcome “an increased loss of data due to the difference in phase and frequency between the node’s local and reference clocks.” (*Muntz* – column 3, lines 33-36). The office action acknowledges that *Muntz* does not expressly show testing of a communication network.

Finally, even if one were to combine *Muntz* with *Khasnabish* and *Masri*, the present invention would not be obviated by such a combination. In order for a claim to be rejected on the ground of obviousness under 35 U.S.C. § 103(a), the prior art references must teach or suggest *each and every element of the claim*. See *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 934 (Fed. Cir.), cert. denied, 111 S. Ct. 296 (1990); *In re Bond*, 910 F.2d 831 834 (Fed. Cir. 1990); MPEP 2143.03 (“[t]o establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art”).

None of the above references disclose, teach or suggest testing a telecommunication network by recording a time value at a first location using a first clock and recording a second time value using a remotely located second clock. This previously-implicit feature of the present invention has been made explicit with the present claim amendments. As

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discussed in detail above, and as acknowledged in part by the office action, Muntz does not teach testing of a communication network and Khasnabish and Masri do not teach remote testing techniques. The only cited discussion of remote-based techniques is found in Muntz, which the office action acknowledges does not address testing.

Accordingly, withdrawal of the rejection of claims 1-25 under 35 U.S.C. §103(a) as being obvious over Muntz in view of Khasnabish is believed proper and respectfully solicited.

### **CONCLUSION**

In view of the foregoing, applicants respectfully submit that the present application is in condition for allowance. Reconsideration of the application and an early Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow the present application for any reason, the Examiner is encouraged to contact the undersigned attorney, Vincent J. Roccia at (215) 564-8946, to discuss resolution of any remaining issues.

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